REMARKS

Claims 1-27 have been examined and are all the claims pending in the present application.

Applicants thank the Examiner for indicating that claims 4, 6-7, 11, 13-14, 18 and 20-24 contain allowable subject matter. However, Applicants believe a broader scope of the invention is patentable in view of the art of record.

I.   Claim Rejections - 35 U.S.C. § 102

Claims 1-3, 5, 8-10, 12, 15-17, 19, and 25-27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Stubler, et al. (6,804,684). Applicants submit the following comments in traversal of the prior art rejections.

A.   Claims 1, 8 and 15

Applicant's invention relates to a comparison of similarity between images, and more particularly, to calculating the **similarity value** between the images, based on the similarity value between the objects included in the images. By comparing images based on characteristics of objects included in the images, similarity between images is judged and a similarity value between the images is obtained.

In particular, claim 1 recites:

> calculating a similarity value between the objects included in the images, based on the characteristic information;
>
> calculating the similarity value between the images, based on the similarity value between the objects.

Stubler, on the other hand, relates to a method of generating captions or semantic labels for an acquired image based upon similarity between the acquired image and one or more stored images that are maintained in an image database, where the stored images have preexisting captions or labels associated with them to be extended to the newly acquired images (Abstract and col. 3, lines 13-31). In particular, Stubler discloses that the method uses image similarity based upon objectively measurable or determinable **metadata (i.e., objects)** to provide a mechanism for assigning the captions or labels to the newly acquired images (col. 3, lines 32-45 and col. 4, line 64 to col. 5, line 2).

The Examiner appears to concede that Stubler fails to explicitly disclose "calculating the similarity value between the images, based on the similarity value between the objects," but asserts that it would have been **obvious** in view of certain aspects taught in Stubler. However, the Examiner appears to be improperly rejecting the claim under 35 U.S.C. § 102 instead of 35 U.S.C. § 103. Thus, Applicants submit that the rejection is deficient for at least this reason.

For example, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) (MPEP 2131). Furthermore, under the doctrine of "inherency," if an element is not expressly disclosed in a prior art reference, the reference will still be deemed to anticipate a subsequent claim if the missing element "is necessarily present in the thing described in the reference" *Cont'l Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991). "Inherent anticipation requires that the missing descriptive material is **'necessarily present,' not merely probably or possibly present**, in the prior art." (emphasis added) *Trintec Indus., Inc. v. Top-*

U.S.A. Corp., 295 F.3d 1292, 1295, 63 U.S.P.Q.2d 1597, 1599 (Fed. Cir. 2002); see also MPEP

§2112. Nothing in the disclosure of Stubler fairly suggests that **similarity values** between the

images are calculated based the similarity value between the objects.

The Examiner asserts:

> it would have been obvious to an ordinary artisan since the claim does not
> preclude intermediate processing, i.e., grouping and/or clustering, that
> grouping/clustering the acquired images by using metadata similarly, and
> evaluating the presence of any similarities between the clusters and groups and
> the images within the database or between the labeled regions of the clusters and
> groups and labeled regions of images within the database on the basis of either
> one of the following similarity calculation events similarity, global similarity or
> region similarity does indeed requires the calculation of similarity value between
> images. (emphasis added)

Applicants respectfully disagree with the Examiner's position. Stubler discloses that new

images are acquired (100), metadata is extracted from the newly acquired images (110), and the

acquired images are clustered or grouped by metadata similarity (120) (col. 6, lines 7-12 and col.

7, lines 15-17). Although the acquired images are grouped based on metadata similarity, Stubler

fails to suggest that **similarity values between the images** are calculated, according to claim 1.

Once the acquired images are grouped by metadata, the presence of similarities are

evaluated (130) between the groups and the images within the database, or between labeled

regions of the groups and labeled regions of images within the database (col. 7, lines 23-27). In

particular, this evaluation is based upon either event similarity (e.g., date/time), global similarity

(e.g., color and texture) or region similarity (e.g., faces). That is, Stubler merely discloses that

similarities between the **objects** in the acquired images and the **objects** in the database images

are evaluated. However, the evaluation of similarities between objects fails to suggest

calculating a similarity value between the images, based on the similarity value between the

objects.

If similarities are found (130) between the metadata (i.e., objects) of the acquired images

and the database images, then the preexisting captions or semantic labels from the matched

groups in the database are extended (140) to the acquired images (col. 8, lines 18-39). That is, if

the metadata within the acquired images and database images are found to be similar, captions

are generated for the acquired images that matches the captions of similar database images.

Again, nothing in Stubler suggests that <u>similarity values between the images are calculated</u>

<u>based the similarity value between the objects</u>.

In view of the above, Stubler fails to disclose each and every feature of claim 1.

Therefore, claim 1 is patentable for at least this reason. Claims 8 and 15 include analogous,

though not necessarily coextensive features recited in claim 1, and therefore should also be

patentable for the reasons discussed for claim 1.

B.   Claim 3

Claim 3 recites:

> wherein the characteristic information refers to at least one of items
> comprising <u>a candidate of a name of each of the objects,</u> a reliability value
> representing likelihood of each of the objects having the name, position
> information representing a position of each of the objects in a corresponding one
> of the images, size information representing a size of each of the objects, and a
> statistic value regarding characteristic quantities of each of the objects.

It appears the Examiner asserts that column 8, line 18 - col. 9, line 40 of Stubler discloses

a candidate name of each of the objects by referring to "captions or labels." However, Stubler

merely discloses that the <u>images</u> in the database have preexisting captions or semantic labels

associated with them (col. 8, lines 18-20). That is, Stubler fails to disclose that the "captions or

labels" are a candidate of a name of <u>each object</u>. Furthermore, the evaluation of similarities of

step 130 of Stubler is based upon event similarity (e.g., time/date), global similarity (e.g., color

or texture) or region similarity (e.g., faces) (col. 7, lines 27-30). None of the above disclosed in

Stubler refer to the features recited in claim 3.

In view of the above, Stubler fails to disclose the features of claim 3. Therefore, claim 3

should be patentable for at least this reason.

C.   Claims 5, 12 and 19

Claim 5 recites "storing the images by classifying the images according to the similarity

value between the images." The Examiner asserts that step 140 of Stubler discloses this feature

of claim 5. However, Stubler at best discloses that <u>labels are matched</u> to acquired images based

on database images which have similarities in metadata (col. 8, lines 18-39). For example, if an

acquired image has the same **<u>time/date</u>** as a the time/date of a database image, the acquired

image may obtain a similar caption to that of the database image. However, Stubler fails to

disclose storing the images by classifying the images <u>according to the similarity value between

the images</u>.

Claims 12 and 19 should be patentable for similar reasons.

D.   Claim 25

Claim 25 recites that "the calculation of similarity value between images is <u>for plural

images stored in a **database**</u>, and wherein at least two of the stored plural images are compared

against each other." However, Stubler merely discloses that metadata is compared between an

acquired image and images stored in a database (i.e., database images). The acquired images are

not yet stored in the database, and thus, there is no calculation or comparison between the images

stored in the database. Claim 25 should be patentable for at least this reason.
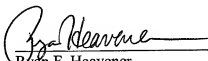
E.   Remaining claims

Applicants submit that the remaining claims are patentable at least by virtue of their

dependencies.

II.   Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

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